

SEQUENĆE LISTING

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Glu Lys	s Leu 35	Cys	Ala	Thr	Tyr	Lys 40	Leu	Cys	His	Pro	Glu 45	Glu	Leu	Val
Leu Let 50	ı Gly	His	Ser	Leu	Gly 55	Ile	Pro	Trp	Ala	Pro 60	Leu	Ser	Ser	Cys
Pro Sei 65	r Gln	Ala	Leu	Gln 70	Leu	Ala	Gly	Cys	Leu 75	Ser	Gln	Leu	His	Ser 80
Gly Let	ı Phe	Leu	Tyr 85	Gln	Gly	Leu	Leu	Gln 90	Ala	Leu	Glu	Gly	Ile 95	Ser
Pro Glu	ı Leu	Gly 100	Pro	Thr	Leu	Asp	Thr 105	Leu	Gln	Leu	Asp	Val 110	Ala	Asp
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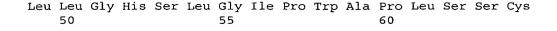
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Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser 65 70 75 80

Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser 85 90 95

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Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro 115 120 125

Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe 130 $$135\$

Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe 145 150 155 160

Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro Thr Pro 165 170 175

Leu Gly Pro Ala Ser Ser Leu Pro Gln Ser Phe Leu Leu Lys Cys Leu 180 185 190

Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln Glu Lys 195 200 205

Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val Leu Leu 210 215 220

Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys Pro Ser 225 230 235 240

Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser Gly Leu 245 250 255

Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser Pro Glu 260 265 270

Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro Ala Leu 290 Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe Gln Arg 305 310 Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe Leu Glu 330 Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro 340 <210> <211> 90 <212> DNA Homo sapiens <213> <400> 7 atggctggac ctgccaccca gagccccatg aagctgatgg ccctgcagct gctgctgtgg 60 90 cacagtgcac tctggacagt gcaggaagcc <210> 8 <211> 522 <212> DNA Artificial Sequence <213> <220> <223> DNA encoding single-chain G-CSF copy 1 (codon usage optimized for expression in CHO cells) <400> actocattgg gtccagcttc ttctttgcca caatcttttt tgttgaaatg tttggaacaa 60 gttagaaaaa ttcaaggtga tggtgctgct ttgcaagaaa aattgtgtgc tacttataaa 120 ttgtgtcatc cagaagaatt ggttttgttg ggtcattctt tgggtattcc atgggctcca 180 ttgtcttctt gtccatctca agctttgcaa ttggctggtt gtttgtctca attgcattct 240 ggtttgtttt tgtatcaagg tttgttgcaa gctttggaag gtatttctcc agaattgggt 300

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14

360

420

480

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